

an evaluation device connected to the at least one conductor track configured to measure and evaluate a temperature-dependent change in a resistance of the at least one conductor track.

10. (Amended) The temperature sensor according to claim 9, wherein the carrier is composed of at least one of zirconium dioxide and aluminum oxide.

14. (New) A method for manufacturing a temperature sensor comprising the steps of:  
forming at least one conductor track by a currentless deposition of a metal onto a surface of a carrier and by a subsequent thermal treatment, the carrier being composed of at least one of a metal oxide, a metal nitride and a metal carbide, and  
connecting an evaluation device configured to measure and evaluate a temperature-dependent change in a resistance of the at least one conductor track to the at least one conductor track.

A marked-up version of the amendment is attached as an appendix entitled "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

#### **REMARKS**

Claims 9-17 are pending in this application. Claim 10 is rejected under 35 U.S.C. § 112, second paragraph, for insufficient antecedent basis. Claims 9-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 3,700,857 to Brandes et al. (hereafter "Brandes"). Claims 9-17 also stand rejected under 35 U.S.C. § 102(b) as being anticipated by Toya et al. U.S. Patent No. 4,659,960 (hereafter "Toya").

#### **The rejection based upon 35 U.S.C. 112, second paragraph should be withdrawn**

Applicants have amended claim 10 to correctly recite "carrier" rather than "corner." Accordingly, Applicants submit that claim 10 is in compliance with 35 U.S.C. § 112, second paragraph. It is respectfully requested that the rejection be withdrawn.

**The rejection based upon Brandes should be withdrawn**

Claims 9-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 3,700,857 to Brandes et al. (hereafter “Brandes”).

The Examiner contends that Brandes discloses a resistance heater made up of coated insulated particles. To further distinguish Applicants’ invention from the prior art, independent claims 9 and 14 have amended. In particular, Applicants have added “an evaluation device connected to the at least one conductor track configured to measure and evaluate a temperature-dependent change in a resistance of the at least one conductor track” to claim 9, as well as adding a step for connecting an evaluation device to claim 14.

It is respectfully submitted that Brandes does not disclose an evaluation device, and therefore Brandes does not anticipate the amended claims. Further, although Brandes mentions passing a current through electrodes wound around the circumference of a laminated layer of the sintered mass of electrically coated particles (Col. 3, line 59 to Col. 4, line 2), Brandes teaches that this operation is performed to create resistance heat for a body. Brandes clearly does not teach or suggest using an evaluation device in conjunction with a conductor track to measure the change in resistance of the conductor track from temperature changes. In fact, Brandes teaches away from Applicants’ invention because Brandes teaches a device for uniformly heating an object (Col. 1, lines 27-31; Col. 2, lines 14-19), not a device for measuring the temperature of an object.

In light of the above amendments and remarks, Applicants respectfully request withdrawal of the rejection of independent claims 9 and 14 and dependent claims 10-13 and 15-17.

**The rejection based upon Toya should be withdrawn**

Claims 9-17 also stand rejected under 35 U.S.C. § 102(b) as being anticipated by Toya. To reject a claim based on anticipation, an individual reference must disclose each and every element as set forth in the claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Applicants respectfully submit that Toya does not anticipate the pending claims for the same reasons that Brandes does not anticipate claims 9-17. Specifically, Toya does not disclose “an evaluation device connected to the at least one conductor track configured to measure and evaluate a temperature-dependent change in a resistance of the at least one conductor track,” nor does Toya disclose a method of manufacturing a temperature sensor including the step of connecting an evaluation device to at least one conductor track. Toya merely discloses a spark

plug electrode element made of sintered ceramic particles. (Col.2, lines 51-55).

For the above reasons, Applicants respectfully submit that Toya does not anticipate amended claims 9 and 14, and therefore the rejection should be withdrawn. Similarly, dependent claims 10-13 and 15-17 are also not anticipated, and the rejection of these claims should also be withdrawn.

### CONCLUSION

In view of the foregoing, all rejections have been obviated and/or traversed. Allowance of claims 9-17 is respectfully requested.

The Examiner is invited to contact the undersigned at (212)425-7200 to discuss any matter relating to this application. The Patent Office is authorized to charge any fees which may be necessary for consideration of this paper to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,

KENYON & KENYON

Dated: 7/31, 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please amend claims 9, 10 and 14 as follows:

9. (Amended) A temperature sensor comprising:

a carrier having a surface composed of at least one of a metal oxide, a metal carbide and a metal nitride; and

at least one conductor track composed of a metal, the at least one conductor track covering the surface of the carrier, ~~a temperature-dependent change in a resistance of the at least one conductor track being measured and evaluated;~~ and

an evaluation device connected to the at least one conductor track configured to measure and evaluate a temperature-dependent change in a resistance of the at least one conductor track.

10. (Amended) The temperature sensor according to claim 9, wherein the ~~corner~~carrier is composed of at least one of zirconium dioxide and aluminum oxide.

14. (New) A method for manufacturing a temperature sensor comprising the steps of:

forming at least one conductor track by a currentless deposition of a metal onto a surface of a carrier and by a subsequent thermal treatment, the carrier being composed of at least one of a metal oxide, a metal nitride and a metal carbide, and

connecting an evaluation device configured to measure and evaluate a temperature-dependent change in a resistance of the at least one conductor track to the at least one conductor track. ~~a temperature-dependent change in a resistance of the at least one conductor track being measured and evaluated by the temperature sensor.~~